



# Success Story Getting on the Books with Waste Reduction

**“Our waste reduction and recycling programs profoundly demonstrate how our environmental and business interests can be achieved without compromising either.”**

Bruce Norton  
Environmental Scientist  
Constellation Energy Group

More and more companies that seek to reduce greenhouse gas emissions are recognizing the climate benefits of alternative waste management strategies, such as recycling and reuse. The U.S. Department of Energy’s (DOE) Voluntary Reporting of Greenhouse Gas Program provides a means for individuals, companies, and organizations to report their emissions reductions from recycling programs and other waste management activities.

## **GHG Reductions from Waste Management: DOE Voluntary Reporting Program**

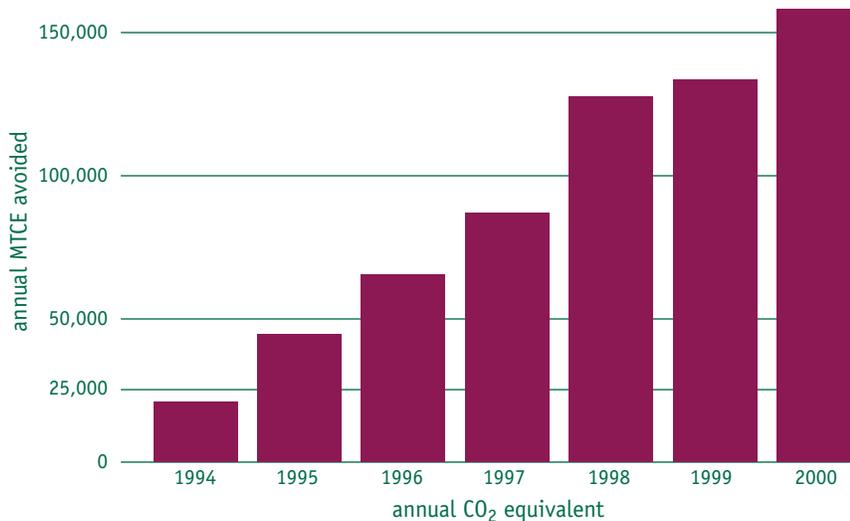
Section 1605(b) of the Energy Policy Act of 1992 established the Voluntary Reporting of Greenhouse Gas Program. The 1605(b) program, as it is commonly called, was created so that individuals or entities can report information on any activity that reduces emissions of greenhouse gases or increases carbon sequestration. The 1605(b) program currently is administered by DOE’s Energy Information Administration (EIA).

The 1605(b) program has registered more than 230 companies and organizations. Collectively, these entities have reported cumulative reductions of 969 million metric tons of CO<sub>2</sub> equivalent since 1994. By recording their accomplishments with EIA, they establish a public record of emissions reductions and receive a certificate of recognition for environmental stewardship.

Due to requests from companies that wanted to report their recycling activities, EPA provided DOE with a methodology for converting waste activities into

greenhouse gas benefits, based on existing emission factor research. In 1999 alone, more than 20 entities used the EPA-provided methodology to report recycling and source reduction activities. These activities reduced the quantity of waste disposed in landfills by 711,602 metric tons, resulting in emission reductions of 572,288 metric tons of CO<sub>2</sub> equivalent.

**Constellation Energy Group Greenhouse Gas Reductions from Recycling**



## **Constellation Energy Group**

One of the participants, Constellation Energy Group (a subsidiary of Baltimore Gas and Electric Company) has recycled 71 percent of the total waste it generated since 1993,

including paper, rubber, plastic, metal, and wood. One source that Constellation used for innovative ways to reduce waste and save money is WasteWise, an EPA partnership program. Through WasteWise, EPA provided Constellation with a variety of waste reduction publications and other resources and a summary of its waste-related greenhouse gas emissions.

### **Portland General Electric**

Portland General Electric (PGE) is an investor-owned utility that conducts business in eight Oregon counties. The company recycled almost 10,000 tons of metal and nearly 2,000 tons of paper since 1991.

### **Clairol**

Clairol, an international corporation that makes hair-care products, has recycled 55 to 60 percent of its total solid waste annually since 1991. Clairol relies on an on-site solid waste contractor to provide recycling data for the 1605(b) program. The company has found that converting data to familiar measures, such as expressing tons of paper in number of trees, has helped raise employee participation.

### **Benefits**

The environmental benefits of Constellation's recycling program are striking. To date, Constellation avoided nearly 160,000 metric tons of CO<sub>2</sub> equivalent through recycling. In addition, the company saved approximately \$5 million in avoided disposal costs and more than \$8 million in avoided purchases as a result of the reuse program.

PGE estimates that the company has avoided 68,000 metric tons of CO<sub>2</sub> equivalent. In 1999 alone, PGE reduced 11,836 metric tons of CO<sub>2</sub> equivalent and avoided more than \$100,000 in disposal costs due to recycling of metal and paper.

In 1999, Clairol reported savings of 1,097 metric tons of CO<sub>2</sub> equivalent, due to recycling 1,589 metric tons of corrugated cardboard, 53 metric tons of mixed paper, and 48 metric tons of plastic.

In addition to environmental and economic benefits, the 1605(b) program provides social advantages such as educating companies on ways to limit emissions, spreading the word about innovative emission reduction activities, and developing a database that can be used to evaluate future policy instruments aimed at limiting emissions. Waste reduction efforts clearly play a role in reducing greenhouse gas emissions.

### **Challenges**

The 1605(b) program provides a means for companies to make the link between their recycling activities and reducing greenhouse gas emissions. Although many corporations have internal waste management programs and express interest in climate protection, only a fraction have taken advantage of their greenhouse gas reductions as a benefit from waste reduction measures via the 1605(b) program. EIA does not actively recruit companies to register their efforts with the 1605(b) program, but it does work with programs such as WasteWise that encourage companies to reduce greenhouse

gases through waste reduction measures. Registering emissions reductions through 1605(b) provides a means of gaining recognition for WasteWise partnerships.

Once companies decide to register their efforts, they are faced with the challenge of quantifying emissions reductions. EIA provides technical assistance on its Web site, which offers general guidance, discussions, worksheets, and electronic tools for preparing annual reports for the 1605(b) program. Recycling worksheets assist users with calculating emissions reductions obtained from recycling various materials.

### **Additional Information**

For more information on the 1605(b) program, see <http://www.eia.doe.gov/oiaf/1605/frntvrgg.html>

To access the 1605(b) Public Use Database, see <http://www.eia.doe.gov/oiaf/1605/database.html>

For information on WasteWise, call 1-800-EPA-WISE (372-9473) or go to [www.epa.gov/wastewise](http://www.epa.gov/wastewise)

For more information on Constellation Energy Group, see <http://www.constellationenergy.com>

For PGE, see <http://www.pgecorp.com>

For Clairol, see <http://www.clairol.com>

**EPA's Climate and Waste Program** increases awareness of climate change and its link to waste management in order to (1) make greenhouse gas emissions a factor in waste management decisions and (2) employ waste management as a mitigation action for reducing greenhouse gas emissions. For additional information on EPA's Climate and Waste Program, see [www.epa.gov/mswclimate](http://www.epa.gov/mswclimate).

